

IN THE SPECIFICATION:

Please replace the paragraph beginning on page 11, line 6 with the following paragraph:

Inductors 20, 30 are coupled in series with conductors 14, 18 and downstream of the input to the power supply ~~36~~ 15. The two inductors are inductively coupled to each other and inductor 20 is connected to feed a signal representative of the derivative (di/dt) current in the conductors to the arc fault detector 24 as described above. The microcontroller of the arc fault detector can be a stand alone component or it can be a part of the IC 225 of the ground fault circuit interrupter. If the microcontroller is a stand alone component, the trip signal generated by the microcontroller is fed to the SCR trigger circuit 216. If the microcontroller is a part of IC 225, the trip signal is the TRIG-GFCI signal from IC 225.

Please replace the paragraph beginning on page 12, line 26 with the following paragraph:

In those instances where the electrical power distribution network is three phase, a third series inductor 40 can be coupled in series with the third conductor 4 to produce a voltage across itself related to the derivative of current flow in the third conductor and positioned to achieve flux coupling with the inductor in the first and/or second series inductor(s) 20, 30.